



7th RAP Seminar

The 7th Seminar on RIKEN Center for Advanced Photonics

Language: Japanese

Date : **Dec.13 (Fri), 2013, 16:00 ~ 17:00**

Location : Cooperation Center, 3F, W319, Wako Campus, RIKEN
(理研 和光キャンパス 研究交流棟3階会議室 W319)

Title : **Observational Astronomy
with 30m Telescope TMT**
30m望遠鏡TMTで見る宇宙

Speaker : **Prof. Masanori IYE**
(National Astronomical Observatory)

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(国立天文台)

National Astronomical Observatory of Japan built Subaru Telescope, an 8.2m telescope for optical and infrared astronomy, on the summit of Mauna Kea, Hawaii in 1999.

The speaker's group built an adaptive optics system to improve the Subaru's vision by an order of magnitude by measuring the optical wavefront distortion due to the turbulent atmosphere and compensating the disturbance with a deformable mirror in real time. Collaboration with RIKEN made successful development of a Laser Guide Star Facility to enlarge the opportunity to use the adaptive optics for observations.

With Subaru Telescope, NAOJ made discoveries of the most distant galaxies at 12.9 billion light years away to study the early history of the cosmic dawn after the dark age of the Universe. Successful imaging of extra-solar planets is another achievement.

NAOJ, in collaboration with US and Canada Universities, China and India, is planning to start the construction of a 30m telescope from 2014. The science objectives, associated technologies, and the current status of the multi-national project will be reported.